ENVIRONMENTAL CHEMISTS

Date of Report: 01/07/03 Date Received: 01/03/03

Project: Metro Self Monitor, PO# M89884, F&BI 301017

Date Extracted: 01/06/03 Date Analyzed: 01/06/03

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLE FOR TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Results Reported as mg/L (ppm)

	Sample ID Chromium Copper Nickel Zinc
	Laboratory ID
	항사 여러는 문제가, 나라고 나라는 사람들은 마셨다. 안 하는 사람들은 아내는 사람들은 사람들은 사람들은 사람들은
	M89884 0.22 0.30 0.16 <0.05
1 m	301017-01
	기능성은 경우 중요한 그는 이번 사람들은 사람들은 사람이 얼마를 가는 것도 있다는 것이 되었다면 다른 사람들이 되었다.
	Method Blank <0.05 <0.05 <0.05
	되었다. 이 사는 아는 아는 아는 이 사람들이 가지 않는 그 사람들이 되었다. 이 사람들이 되는 사람들이 가지 않는 것이 없는 이 사람들이 되었다. 이 사람들이 아니다 아니라

ENVIRONMENTAL CHEMISTS

Date of Report: 01/07/03 Date Received: 01/03/03

Project: Metro Self Monitor, PO# M89884, F&BI 301017

QUALITY ASSURANCE RESULTS FROM TOTAL METALS BY INDUCTIVELY COUPLED PLASMA (ICP) (METHOD 6010)

Laboratory Code: 301020-01 (Duplicate)

	Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference	Acceptance Criteria	S ₁
-	Chromium	mg/L (ppm)	0.11	0.05	a	0-20	7
	Copper	mg/L (ppm)	1.1	1.1	0	0-20	
	Nickel	mg/L (ppm)	< 0.05	< 0.05	nm	0-20	
	Zinc	mg/L (ppm)	0.15	0.15	0	0-20	

Laboratory Code: 301020-01 (Matrix Spike)

	Reporting	Spike	Sample	% Recov	ery Acceptance
Analyte	Units	Level	Result	MS	Criteria
Chromium	mg/L (ppm)	2	0.11	81	50-150
Copper	mg/L (ppm)	2	1.1	91	50-150
Nickel	mg/L (ppm)	4	< 0.05	79	50-150
Zinc	mg/L (ppm)	2	0.15	81	50-150

Laboratory Code: Laboratory Control Sample

	Reporting	Spike	% Recove	ery % Reco	very	Acceptanc	e RPI)
Analyte	Units	Level	LCS	LCS	D	Criteria	(Limit	20)
Chromium	mg/L (ppm)	2	96	97		80-120	1	
Copper	mg/L (ppm)	2	97	99		80-120	2	
Nickel	mg/L (ppm)	4	93	90		80-120	3	2 day da
Zinc	mg/L (ppm)	2	91	87		80-120	4	

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

(30/0/7)	SAMPLE CHAIN OF CUSTODY	· •	WE 1/3/03 RT3
Send Report To G. Monosow Company Alaskaw Copper works Address 628 S. Hander ST	PROJECT NAME/NO. MEDIRO SELS MONITUR	PO# m89884	Page #of TURNAROUND TIME Standard (2 Weeks) RUSH Rush charges authorized by:
City, State, ZIP STAME UM 98/34 Phone # 206-387-8379 Fax # 206-387-4309	REMARKS		SAMPLE DISPOSAL Dispose after 30 days Return samples Will call with instructions

										ANA	LYS	ES R	EQU	ESTI	ED			
Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by 8260	SVOCs by 8270	HFS	Og Cy 12, 22					Notes	
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		e Bruya, Inc. venue West
Seattle,	WA	98119-2029

Ph. (206) 285-8282

Fax (206) 283-5044

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ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

January 7, 2003

DUPLICATE COPY

INVOICE # 03ACU0107-1

Accounts Payable Alaskan Copper Works 628 South Hanford Seattle, WA 98134

RE: Project Metro Self Monitor, PO# M89884, F&BI 301017 - Results of testing requested by Gerry Thompson for material submitted on January 3, 2003.

FEDERAL TAX ID #(b) (6)

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D. Charlene Morrow, M.S. Yelena Aravkina, M.S. Bradley T. Benson, B.S. Kurt Johnson, B.S. 3012 16th Avenue West Seattle, WA 98119-2029 TEL: (206) 285-8282 FAX: (206) 283-5044 e-mail: fbi@isomedia.com

January 7, 2003

Gerry Thompson, Project Manager Alaskan Copper Works 628 South Hanford Seattle, WA 98134

Dear Mr. Thompson:

Included are the results from the testing of material submitted on January 3, 2003 from the Metro Self Monitor, PO# M89884, F&BI 301017 project. There are 2 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Charlene Morrow for Michael Erdahl Project Manager

Enclosures ACU0107R.DOC